Cambridge, Jan'y. 12. 1857.
(Evening)

TORREY HERBARIUM.

Dear Dr. Torr

I am waiting for you to send or to indicate what you want Hochstein to draw. He is out of work, entirely. His Chlorocalyx, & Sprague's two drawings We send to-morrow. to you, as directed by Prof. Lec. Emory. (who has paid for them)

I am very busy finishing up book 4 —

I should have handed you this sheet of Euphrasia — wh. contains letter while you were here.

The 7 earlier leaves are corrections of Euphrasia — to be returned to me, when you have done with it (. We shall have it amended from Berlin, probably) —

The rest is for Mrs. Brand, Surrey, I see. — & so to go to you —

We send parcel by Express in great haste Yours ever

A. Gray

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

Cambridge, Jany. 13th 1859

TORREY HERBARIUM.

Dear Doctor

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

Though I have hitherto had paper enough to last 6 or 8 months longer. yet I think of giving Eaton (who wants I should get him a stock) & have a new lot made (of 10 reams) You know my last lot (I was very neat & good. & I shall order new lot like it. To get it on the best terms it is needful to make a considerable order. If your stock is low, & you can to join us, let me know.

The last lot weighed 18 lbs 9 ozs per ream, and cost me $3.40 a ream. —

Hochstein wanders about still, with nothing to do —

Hays & Mrs. Hays dreadfully disappointed at not seeing you — when you called.

I began the intercalation of
Gompertz Miscellanea
but Stone left, but was
unable to finish it in time to
send by him —
I will send it in a few days.

Yours ever

A Gray

HARVARD UNIVERSITY

272. 185[illegible] 12

Tuesday - [illegible] 20 -

TORREY HERBARIUM

Dear Dr Gr

I got yesterday your favor of the 15th - postmarked 17th inst. & have sent Hochstein at Euryale Acanthocaltis, - wondering the while at your motive of figuring such an uninteresting thing. I believe, however, it has still the advantage of being an undescribed Celtis. (It is not C. aculeata. Ser.) -

It is a Celtis § Malezia Planchon, Ann. Sci. Nat. 3e Ser. 10. p. 308. - or better § Momisia, Miq. in Fl. Brasil. p. 173 (he has at the end an enum. of the other spec. he knows, & does not take in this. - nor does Planchon - & it is probably new still. -

TORREY BOTANICAL CLUB COLUMBIA UNIVERSITY

You know of Hayland, he bandles for Draughtsman — for the last 10 years has lived at Milan. Bissier writes he would come to this country now, if he had promise of work as a botanical Draughtsman — He is good for part of Plants — &c —

Could you offer him any inducements now? — Or will Hochstein & Sprague do the work we need

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

By the way, you must have the rest of drawings for Hochstein ready now — for he will finish the botanical pretty soon — He has it already in hand —

About authors of Cryptogams you said that Sprague should follow your sketches, & as materials were scarce, he did, I presume — Why did you not cross out any that were wrong?

JOURNEY LIBRARY OF SCIENCE COLUMBIA UNIVERSITY

TORREY HERBARIUM.

Cambridge. April 3. 1857

My Dear Peter.

The good Hunter has been with me for some days; and we have just finished what we can do for grasses— He is quite an fait with them. But my knuckles were in such state that little could be done except by my constant attention. Fortunately it enabled me to get a great mass of things ready for my herbarium & laid out for glues.

Hunter is not aware — & I do not wish him to be — how inconvenient it is to me to have him here just now, when I particularly want quiet for some writing & which requires uninterrupted concentration of mind. I can now do only little fiddling things — but not the work I wish. —

This morning I got your letters of "Feb. 27" & April 1. — and I will notice them in order.

I see I am writing on a ½ sheet. I will begin on a whole one —

TORREY HERBARIUM

HERBARIUM COLUMBIA UNIVERSITY

265.

Aug 3 - '87

I am unable now to do any thing about Polemoniaceæ & Hydrophyllaceæ

Erythræa. It is some years since I studied them at all, and much material has accumulated since —

If I could possibly command time I would do them for you — tho' I have now no definite notions about them, — except that our species do not belong to E. Centaurium of Europe — That we have only as the introduced species.

I send you my old MS. — from which you will see how I then regarded them. Beutha. ~~in~~ Swertia. has been published since.

Well — Here is a reason against retaining letters a month or two, — On the plates, before printing the Index & bibliography Manual, I could have corrected that great blunder of mine you point out to me, about Verbena hastata & urticifolia — a gross blunder it is, & I am much obliged to you for pointing it out.

Now, you see, I blow you up in return

for valuable information!

As to V. canescens = V. ramosa, Benth — you must have it in plenty, Bolanders & Mrs. — My specimens are shed down or I would send you plenty.

In my herbarium it occurs —

Pl. Stanton. 174 (V. ramosa)
" " 177 V. canescens.

Bolander — 827, 2247, & 955, 1485, 2054,
Coulter. Mex. 1146 2254.
Lindheimer (1846) 77.
Hendler — 594
Pope. Pecos & Llano Estacado —
Wright. 1496. 1497.

I think you will identify

I do not wonder you combine V. bipinnatifida & V. subtetra —

I think I must give up the idea of doing the Convolvulaceae for you. Unless you can give me a month or so yet. —

Am for your late letter —

I trust you have dropped a letter to Gibbes. — The great knack is to write short & prompt letters — it saves a world of trouble. —

Send on to Strackstein. He comes in every day to ask if anything has come for

him to do — Until you shall have 3 months work ready for him, it would not be well for you to take him to N.Y. Let him do two or three sets first — till you are ready.

I have paid him $35 for three Map. Boundary Plants he has lately drawn — 4 Plants — & should like the money back one of these days.

Please tell me what the Extras of Whipple's Report are to cost — about — and I will pay how many I would like to have — — We had best have say 100 copies & divide them & the expense between us. — What am I to pay for the extras of Beckwith's Report — & Ropes? — and where are the Plates of the latter —

As to title of Whipple's Report. You have done an immense deal of work on it, and it is due to yourself & me agreeable to me that your name alone should appear on the title.

I believe I mostly did the early part of the coll. (Lieut. Smith to Rio Grande) up to end of Composite — But as they are incorporated with the rest, it is best

let it pass — or
say in the preface that I have
helped in some parts & elaborated the
Compos. & Sculpt. — And if there
are any spec. characters, or important
observations in any of the Polypetalae, you
may when you think it worth while,
just cite "Gray Mss." But the
great bulk is yours & all that
is Dipsacus work should be credited to
you alone — so please fix it so —
I will read the proofs with pleasure.
They must be well seen to. —

At only I did not send you that
sheet finishing Pl. Hartw. — but I never
saw it. Bentham must have sent it to
himself. Was it not addressed in his hand-
writing?

Euphrasia — Euphrasiae you can cite,
as mss — when you need. — Next summer
he will probably send me more to print.

Fraxinus Pennsylvanica DC. = F. viridis Vahl.
Bosc's garden Fraxini are all Both.

I do not remember any difficulty between
Asplenum ebeneum & A. fasciculatum.

HERBARIUM COLUMBIA UNIVERSITY
TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

256

Cambridge 11th April 1857

TORREY HERBARIUM

Dear Sir,

The drawings were duly received (3 spec. for E. Exp.) & Hochstein is sketching the Daricpaya

So "Gibbesia" is a Blitaria Then what could you have seen in it to make a genus of?

As to "Blitaria" I do not see that you are at all bound to adopt the suggestion of "Nuttia" — the name so as the other really does invalidate our Blitaria, and he never would be detected in the form of Nuttia —

CORRESPONDENCE OF ASA GRAY HARVARD UNIVERSITY

The Grass-man is Major Munro of E. Ind. Service I do not know him personally, but he is quite a worker and is taking to Grass.

I do not find Physostigma
in my own herbarium now. —
Yet I think I have it, &
am confident that it was the
little parcel of Whipple —
Plants lately returned (last
winter) there were one or two
returned to you of this Plant.

You have asked me before
about Chenopodium Virginicum
And I could not help you —
All I know is that the
Plant is in St. Linn. & that
in 1839 I entered in my
notes
"C. - Virginicum! = S. salsa."
That is all.

I'll take as many
copies as you wish of
Whipple's Report — at 25 cts

each, — up to 5ᵛ — I do
not want more — and shall
that number would answer.

Proofs of Rail Road Reports
must be sent, and be seen
by both of us. Let Sar=
torny take one reading, either
of proof or revise, or of both.

I'll send on Strahstein's
bill very soon — unless you
send more plates to draw.
Those now on hand, you
know, belong to Ex. Exped.

Ever Yours affy

A Julian

239

Cambridge 18 April, 1857

RECEIVED

Dear Sir,

I have yours of the 16th.

It will not do to send my proofs on to Washington after yours. The two would puzzle the printers. You will have to retain yours till you get mine, & then transfer the marks, as for a medal. (except for the Comparitive & the Graphis — which I will send to Washington.

It is no use my reading the proofs if my marks are not received & used by printer.

The proofs must be read by author.

Take no more jobs without a written engagement that you shall see proofs & your marks be attended to.

I'll send back all proofs by post mail.

SMITHSONIAN INSTITUTION LIBRARIES HERBARIUM COLUMBIA UNIVERSITY

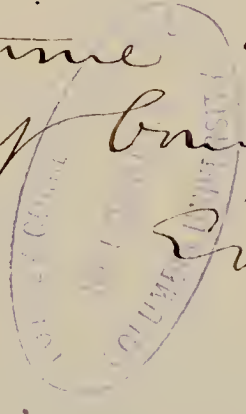
I have not got my £200
yet from the executors of Michaux's
bust. I have information that
the widow wishes to pay it,
and shall arrange to have
drawn soon.

We must use it in some
way to do honor to Michaux's
memory.

I am dreadfully pressed
just time yet to fix up the
matter of Compromise & Boundary.

Yours

A. Gray



228

Cambridge. Jan 30. 1877

HERBARIUM

Dear Sir,

I wish you this morning before receiving yours of 28th inst.

I cannot think the parcel by Express is lost. — I will ask my Express-man where he took it. probably to Kinsley's Express. I demand it of Kinsley. Adams & Hamden.

Will you set Hochstein at one of those beg- Howard ~~Austrias~~? Chiles or Russias or both? —

Have you made any arrangement about the drawing of Dedisperis?

I have no belief in any of the Klotzschian Monisia being the Texas ones. species we have. Compare characters — none agree, but I look only cursorily —

As to Leucophyllum minus —

I saw no intermediates — & after pondering over it some time came to a conclu-

dian. which I don't care to revise -
(as I could do it no better) without
new data - with those I would
cheerfully look it over again. But
if you feel much doubt as to having
over - suppress it. if you like.

I have Cant. 1271, but on
studying, do not consider it diff.
from L. Jaxamum. My greater
fear was that L. minus was
a small state of L. ~~[illegible]~~.
ambiguum.

Your remarks about Dalea
open a question I can not
offer an opinion on without a
good deal of investigation - at
this moment impossible.
But my impression is that
the species you mention cannot be
Psoraleas - but either belongs to a
new genus between, or a section
of Dalea. You can best
judge. I am quite taken aback
by your observation.

In your first package
kindly send me all your
material of Lilia heterophylla,
or whatever you call the large
leaved one Canescent beneath.

941

Cambridge, 23d July 1857.

TORREY HERBARIUM

Well, my dear Dr, Here are the girls. They dropped in and took us all by surprise, as their announcing letter never came (dropped in some body's pocket?) But their visit is not the less welcome, nor the less timely. The house was just empty, and it is a real pleasure to have them here quiet by as it at home. They do not put her out in the least.

HERBARIUM COMMON UNIVERSITY

I am driving Mr Peirce, and electrotype edition of Bot. Text Book as fast as possible — so much other work till just now that the printer is right on my heels. But now I mean to get ahead of him. This once done and off my hand I shall not have to touch it again. It must last my time.

As soon as I get 5 days ahead of the printers, I will take up your Boundary Conjecture — I shall not go to Montreal. It has cost Jane & I both some thing to give it up, the more so as we have kind invitations from Dawson. But I cannot afford the time, nor the expense. What with advancing to Hochstein the amount of his bill against Exchgd. for Drawing — to Sprague, to L—

I shall have as much as I can do to get on at all through the summer, and I am determined to work constantly and finish up some of my long pending heavy jobs. When you come on, we will talk over many things, and you shall work as much as you like.

Perhaps you had better come after the Montreal meeting, & stay a week or so. Then you may take the girls home with you. They must not go before (You can come a week before the 12th Sep. if you like better) — Eliza is thin & evidently very much broken down by her Washington work, — needs recruiting, and a quiet life here will be the very best thing for her — and it will do Maggy good too —

Shall we count on seeing also, how soon will he be along?

My boxes wait for the parcel for Schultz. Bps

Let me have just as many and as fast, copies of the Whipple

Botany as you like to spare -

If Wendell charges you for the sheets as he did me for those of my Japan Botany, the bill will be heavier than one likes to can well stand.

I hope the sheets of Pl. Whipple are not trimmed. If so, the two Beckwith & Pope's Reports are spoiled thereby; the latter pays much smaller than the plates. To cut them down as they must be in binding will make a bad business - spoil all the good looks.

There is no difficulty in having the sheets delivered folded but not trimmed. I asked Wendell to do so with Japan Botany, and they have come so. — —

You don't say the Whipple letter-press is all trimmed — like Pope's & Beckwith's!

I long to get back to N. Amer. Botany; but it cannot be for a good while.

A copy of plates of Exploring Expedition is ready for you —

HARVARD UNIVERSITY HERBARIUM

– loose plates. I cannot afford to bind. Shall I send, or keep till you come, or the girls go home?

I am sometimes disheartened when I think what an immense amount of work I have got to do this year. I have turned all very little this spring & summer – but now I go at it to make advantage. I shall not be absent from my table a day more than I can possibly help.

Norton was married again yesterday, I suppose, in Long Island, to the sister of his former wife – a person we well know, and a very nice & excellent person – who has already been an excellent & devoted mother to his children.

Jane sends back warm love –

Ever Yours affectionately

A. Gray

COLUMBIA UNIVERSITY LIBRARIES

And-Sir

Cambridge. Monday

My. 3. 1857

TORREY HERBARIUM.

My Dear Doctor

I send by Express a stout parcel to you to-day, containing a copy of my Expl. Expd. Atlas for you & also Hooker & Bentham's Genera in a cover addressed to Hooker.

Keep this package at Astor Place, my young friend Mr. Stone will call on Wednesday, and sail on Thursday, if no change occurs, in Screw Steamer for Liverpool

If you have any parcel for Hooker, &—

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

please to get all ready for me to take. -

You will. I must be able to put your & my parcels into the hands of a messenger or porter of Mrs. Alice to take on board for me Stone Thursday morning.

Arrange that, or let Mr. Thurber or Mr. when he calls on Wednesday.

I return Wilkes' letter,
As I wrote you, he has
since written to me on
the subject.

When he comes to
N. Y. let him have, or
see the drawings, and
give him an approval
on the bill, or a new
one. — I do not think
he is so much to blame
for not paying the bill
before seeing the drawings
& having explanations about
the prices. — He will have
$20 to pay for every folio
plate. Wagner makes handsome
Hochstein makes very little
on them.

Do nothing with Cassells
till E. has had his say out.
Otherwise confusion will be
worse compounded. Then we shall

have a basis for sound reduction.

Is the letter press of Mesembs, Cactaceæ printed or not?

See that the names of Cactaceæ are not erased.

I hope you are not going to lose Engraved Plates from Lois: I shall feel anxious about them, & write to Lemaire at once.

Price of Fl. Boreali, £ s —
mentioned in letter to Thwaites —

What's funny about Tetracera being two new Victorias? Why did you not tell me before?

It is like, and perhaps ~~decisive~~ decisive that the genus must be Lobiteæ. Send me a proof of the plate — I think it likely I shall, by many regular emendations — but will remember.

Thwaites can show you the Ferdera Thunbergiæ 977, Ferdera. — = Crocosmia aurea Planch.!

I cannot believe Actæa Pachypoda to be Macounia anthropophagorum but looked at it again.

Ever Yours,

A. Gray

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

25

and. Ky

Cambridge

May 24. 1857

TORREY HERBARIUM

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

Dear Dr

I have again (with A. Gray) been Beverly, and from your letter of the 22. find you are absent.

I hope we shall get Darby to stop here a little on his return.

Do you like Seemann. I am not greatly inclined to fancy him.

Mr Dr I think much and could come from a Flora Mexicana by Kotzschy.

I know of Col. Monro, but never saw him.

Pray be sure the
stones for bactacea
of Whipple are kept
for Engelmann. If
they have mangled C. P.
account, we will reprint it
somewhere in a new form,
and want the plates.

Brilliant then will
share the cost of the Extras
of M. Whipple. —
I want to see a copy of
the Report.

I am much harassed.

Ever Yours

A. Gray

HERB
COLUMBIA UNIVERSITY

P. S.

Do you want your set of Vasey's Flora of Australia, 4 ——?

If you do just shout would be glad to have them. He has been somewhere overlooked.

Let me know. —

A. G.

TORREY COLLEGE
HERBARIUM
COLUMBIA UNIV

245 Ansd. 22nd

Cambridge 21st Aug. 1857.

HARVARD HERBARIUM

My Dear Dr

I suppose you are back from

M — by this time

HERBARIUM COLUMBIA UNIVERSITY.

Kindly fill out the pencil in your certificate for Hochstein's bill — and return it to me.

In haste — just running down to Beverly a gain. to join wife. & make with away when Darby came in his way to White Mts. — & so lost him — shall be here when he returns.

The drawings will have to be sent by Wilkes, or sent to W. — Please number them 1. 2. 3. 4 — & just names on also — and hold till you hear from me.

Love will unto to Eliza & Maggy soon — gets no time at B. —

Just tell them that we are really afflicted by the sudden death of our intelligent, affection-

Lissa, on the 14th inst., a week ago
— my trusty companion for five years. —
a dear good fellow, whom we sadly
miss.

In haste
Ever Yours —
A Gray

Come & visit me as soon as
you like.
A.G.

Did Mr. Howe get the small
parcel I sent a day after that which
contained the Atlas?

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY.

Cambridge. Sep. 31. 1857

My dear Friend

I have this morning yours of 29th.

Darby is not here yet. We have not had quite a visit from him, and expect him daily.

For Short may have the Algæ, I thought you would be as well pleased. Well, if you are coming down, or are sending me a parcel, bring or send the

Myer. If Hurst,
pack papers & address
the parcel to Hunt —
N. Express — taking
a receipt from Express
Co — which send to me.

Hochstein has gone
over a matter ago to
Williamsville, N.Y.

Get your things
in readyness that you
can keep him going
when he comes back,
till you are done with

the Mings.

He will come whenever you want him.

Had you not better take at Newfoundland for a while — & let him draw in your study. He is a rather fast worker. —

I will now — to-day — take up those Comptes-rendus of Mex. Boundary.

You asked in a former letter about Japan oil. When I was ready, I

did the plants up for
Dr. Morrow, who appended
it to his Report to Secr of
State. Then Morrow,
& I also informed Gen.
Pierce what it was, and
that he could publish it,
if he wanted to. — which
he did, & behaved very well.
Morrow got his own bill
through for compensation,
and paid me the $ I
asked for.

Ever Yours affly

A. Gray

P.S.

Send on a copy of text of
Whipple, Compositæ. This is
essential to me in working
up Boundary Compositæ

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY.

Aug 185

265 C—

Tuesday

Dear Sister

I sent to-day a particular small parcel for Stone to take to S. Hooker.

I am glad you have concluded to go to Montreal. But I advise that you go straight from Newport, and come back this way for the girls. They are doing well and getting some strength. But Eliza is not strong enough for what you propose, & Mag. will not go without her. I think

they both want the rest
and good air they are
having here, and that
it would not be wise to
expose them to the inevitable
the over-exertion of the
Scientific Meeting.
Then it will save much
expense. You go &
enjoy it. As for me
I cannot budge for
the printer, who is right
on my heels, and I
have 1000 things to look
after.
Stop at White Mts —
on your way back, if
you fancy it.
Ever thine
A. Gray

Boston Sept. 4. 1859

My dear Dr.

Henfrey has just come yet. I wonder at it

TORREY BOTANICAL CLUB
COLUMBIA UNIVERSITY.

Your letter of the 2d came yesterday afternoon — and the parcel this morning.

I have just glanced over the pages a little, of the portions I had not seen in print.

I will mark the sheets you sent, as I look them over, and return them. —

Engelmann's Cactaceæ at a glance seem to be better printed than I thought.

N. B. I have a chance

to send a small package
to Hooker by next
Wednesday's Steamer, —
and if you get your
copies and will send
one for Hooker — also
separate sheets of the
Contract for Explosion
I will see to them going

N. E. is on the Conti-
nent, I will ask Hooker to
post the sheets to him.

—

I have to blame you
for your article on
Delicipis, for an
unright evidently, but

which Sankey & Bonnar will perhaps think is intentional.

You should have said that you had only ~~the~~ some print from Triplex, & made the character from Bonnar's material supplied by Sankey. The way you have brought it in does not imply that, but seems as if their contributions were only supplus=age.

A funny mistake at the end of "Insecticidal Placentation" for Parietal!

With the book send at present
N P. 149

are funnily misprinted.
Well. You can't expect
Public Printing to be any
better. —

P. 158. Do you put
Mouse into the East
India Co. Service, & keep
him down to Major. !

Well, altogether — with
the plates — it is quite
a respectable book —

If you have to pay
for it, it would be as
well to print ourselves
a page of Errata & paste
in to your copies — & let the
Printers go to grass.

For plates of Sullivant's
Mosses, I think you will
have to apply to Sullivant
himself. But why
trouble yourself with them
since Sullivant has
copies to distribute — except
for our own private copies. —

— —

As to Cucta[illegible] I think
it will be well, as you
have the letter press — to have
the plates too — the 15 —
Then save 5 or ~~10 only~~
25 of the whole Report for
Engelmann. I that will
do for him. I suspect —
as our distribution will go
just about as he would send. —
Yes. I have it. —

See over!

I have the 150 copies taken of Cactus-plates, complete. Put them into our 150 copies. - Lay aside 50 copies of the whole Report for Engelmann. Have them safe, somewhere. I will divide the charges for extra copies into three parts. You, D. & C. (C. may properly pay 1/3, as we have all the trouble) I will pay Engelmann's part of the bill for him, as I have about $30 of his money in my hands.

that will straighten all that up. —

We will argue about the distribution of copies, so that we do not both send to same people. ——

About Rochester

I wrote as I did, because I have no doubt H, would or the whole like to stay in N.Y. a while & make the drawings you need. — going in to cheap lodgings & board, of course, but working in your study. Write to him, at

Williamsville. Can he & suppose it. —

Then should be a good botanical collector with Torr. You or I must care for with Stanberry & put him up to it strongly.

Ever Yours

A Gray

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

933

Cambridge, Sept. 8, 1859

GRAY HERBARIUM

Dear Jussy,

Yours of yesterday is rec'd. Seemann is here. What a pity your parcels were not got ready, when you had only to address them & turn them over to Seem.

SYDNEY COLLEGE GARDENS HERBARIUM COLUMBIA UNIVERSITY

Be the Pipe & Gunison Plants among them things you wanted to send? I suspect Dr. Nor mine are already in France; and all but the Plates (the latter) in Germany too.

I have sent by Seemann a copy to Hooker to make all sure. My work is pretty low (that Mimulus) and I cannot [illegible]

UNIVERSITY

any, if I thought you had sent.

Why not have sent by Rose?

I am the more vexed about Herbert's return, surely he had cash enough to take him to ~~me~~ where he could be supplied. This scientific travelling at £73. is rather costly work.

Bryce — (who was here yesterday & who may come & dine to-day, if not gone — with Lowell, Norton & Norman) — says that Herbert said nothing whatever of his own intentions

at any time to come to
Bunbridge —

for Jane and I were
pained & distressed.
Jane (as well as I) is
most sorry to lose his visit.

Germaine has the letter
you enclosed — wanted
you to send him the music
you promised.

This morning I have
a letter from Englemann
(which I have replied to)
and one for you. He is
again in the Continent,
and I send the Cadiz
letter just to Brooks to post
to Frankfort.

But you must mail another

Copy by 1st Brown Reader
to make sure — Send him
his Frankfort address —
Write C. to Frankfort on
all letters. —

I have told him my
proposal to share Cassada
Plates & all — $2 each — &
pass up his $2 and told him
the stones will be stored till
he will invite and say if he
wants more struck off, or
will have them kept till Xmas.
If kept interest will be charged, I
fear.

As to Washington printing, it
is almost as bad without proof
reading as with. — It is hardly
worth reading. Let it all go,
say I.

You must put Stanberry up
to collecting as well as you
can.

Well, good bye

Ever thine

A. Gray

Look to the Crescentia
for Bond, stamp — the
Englemann's letter —

I had told him that I
would never give in to cutting
up Crescentia into Genera, —
& prudente Hook. & Brown
he now gives up the idea —
Make the alterations he
suggests, & ~~in Introduction~~
give the names of all Mighels'
nos. of Crescentia in a note

In a few days I will send
you a note to print about
Datura Metel & D. meteloides,

Yours ever
A. Gray

Cambridge 9th Sept. 1857

TORREY CORRESPONDENCE
HARVARD UNIVERSITY

My Dear Dr

I am sorry to trouble you again. But I want my notes on Barlandier's collection. — Sent you when last here to take some notes from, on one or two matters. Send it about some computation of your Boundary Rept. as I have some notes there. Kindly send it

Yours ever
Asa Gray

P.S. Letters for Farnham & Rich must stick a few days for your Report.

242

Sept. 18. 1857

GRAY HERBARIUM

Dear Torrey

I have no specimen at all of Lasthenia bisetosa. Have you a bit to spare me? No matter, unless it has been omitted by accident.

Sept. 23

Dear Dr.

We are waiting hard for the rest of Wright's plants — and be as uneasy as a caged tiger — till they come.

I may come on next week. — Have a day with you, possibly bring wife with me and leave her while I run to Washington. Will you keep her? So then my

thing I could bring which you want.

I will bring you your mss. Comps. Boundary

The parcel which I gave Virginia was for Maggy. It contained some pocket handkerchiefs & ties and two Norway Spruce cones —

The wipes we cannot replace — the Spruce cones we can.

Love to all

Yrs ever

A. Gray

CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

Cambridge. 28 Aug.
1857

My Dear D.

I have made up
my mind. in Aber, had
times not to go to Nash=
ville. but I think
I can arrange Sullivants
affair without

I could not leave
home until till the
rest of Wright's collection
comes and is distributed,
and a full set despatched
to Grisebach — who is to
name them.

(Entre nous Wright has
been lazy. I think. &
careless — this seems
almost inevitable in a
tropical country)

I wish the packages and
come on from quarantine. —

I had told you before
that you could not use
Mistis lists. — That
can be done only by refer=
ring to the specimens here,
and I have no clue, except
by turning to the specimens
individually.

I have worked a week
on your Boundary Com=
pilation. — Should have
finished & sent them on
Saturday, but proofs of
all Dr. Sturtevant's Report
came for me to read — two
days work.

I am tired of reading
proofs for people who send
their copy to printer
totally unprepared for

printing.—

Well, I hope to finish your mss to-day, and to send it to-morrow by Express.

And if you want any looking over of your mss. in other ~~departments~~ families, you will have to send or bring it here. I think.

Jane & I would like to come to N.Y. & visit you. but we must deny ourselves now.

Are you nearly ready to turn over your mss. to Emery completed? I suppose so.— and hope so.— and get your pay. When any small portion you assign to me, will be

welcome indeed if it come quickly. —

Henry Rogers is Pres. Nat. History at Glasgow. So he is out of the way.

Haney was President of the Nat. History Section at the Dublin meeting, in place of his deceased friend Robert Ball.

I am with much love to Eliza

Ever Affectionately

A Gray

FARRAND CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

Dec. 28, 1879

TORREY HERBARIUM

Dear N.

I see you will show your faces at our Christmas not even say a word whether you will come at all!!

TORREY BOTANICAL HERBARIUM COLUMBIA UNIVERSITY

Your copy of E. Eq. I suspect will be wanted by Feb. 1. I do not want me to see any mss. of it before sent out.

I have utterly lost Fasc. I. of Plantæ Jungermanniæ. After waiting a long while for it to turn up, I am obliged to

give me back the
copy I gave you long
ago.

What pay you to
the Nuts on Fractions
I sent you, when I
returned your specimens?

If you have no
occasion to use them
& no criticisms to make,
I will print them!

Jane unites in
sending best wishes to
you all for a happy
new year.

Yours truly
A. Gray

HARVARD UNIVERSITY
HERBARIUM
CORRESPONDENCE
CAMBRIDGE, MASS.

Marked 256 Cambridge Wednesday [1857?]

You must decide for yourself whether it is worth while for you to come, and what you can accomplish. If you still retain your MSS of Boundary Botany I should advise you to come & and we will look it over together, right away. I suspect there are several things you have left at loose-ends, a little (Acanthaceæ, for instance) and you must fix all you are to fix, before the MSS leaves your hands; for you can do nothing with proofs.

But if your MSS is delivered and if you can't come at the end of this week, perhaps you had best wait, and I will come with Jane to you, as soon as she has made her Litchfield visit, &

can leave here. But my visit to Starkville will be short. That would be too late for me to help you about Brandegee Botany.

I sent you yesterday the Acanthaceae — which, if you approve any hints you can work up in a day.

Let me know your movements at once, i.e. if you come, very well. If not, say so, right off.

Write or send what St. Leighmann has brought me.

Yours ever

A. Gray

TORREY HERBARIUM

TORREY HERBARIUM 1857

294. My Dear Doctor

I fear I have made a mistake about the authors of that Hemitomes. It is not Sprague's fault. He had nothing to do with it; but Torrey, Asa Gray, after my directions. I am not sure, however — and must have it in your hands for the present.

My material was old & poor.

I forgot all about Heteropappus of Kellogg. — except the drawing of Kellogg. — suppose I get the information from Newberry. Perhaps the name only runs.

Megarhiza grows pretty; stems 15 feet long and many branches —

Very much obliged for your kind care of my Jane.

A. G.

CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

Cambridge Jany 22. 1858

Rec'd Jany 29
answ'd 30/

My dear Jessie

GRAY HERBARIUM.

Only a brief note to-day, which I will enclose in an envelope Jane has just addressed to your girls.

We wish you could have staid longer. I feel as if you hardly accomplished anything, nor had long enough to do much visiting.

We are always very glad to have you come

GRAY HERBARIUM HARVARD UNIVERSITY

Arent Tetraclea. —

When the thing first attracted my attention, Bentham said it must be Verbenaceæ. He never has said anything to me about it since. But you write me B. says it is only Trichostema. It must be looked to. The duplex 4-parted fruit, & the reticulated nutlets, & ascending seed

all look that way, to-
be sure. — I wish you
had touched the subject
when you were here & we
could have gone over it.

I have no directions
here. Please send me a
proof of the plate and I will
look into the matter & give
you my opinion at once.

My present impression
is that it is no Trichosteina
but a Labiata.

(If a Trichosteina, keep the name Gaultéi.)

Salizaria limitaris =
Salizar who is on the fence,
or border. — I can't say
I like it much. Why
not rather S. Mexicana,
i.e. the Mexican Commis-
sioner. +

Acanthocaltis, I assumed your genus by a note when the Drawing was making, saying that the plant is a true Opuntia & Monisia, & not in Planchon's Monograph of the genus — nor yet described.

Wis Botanical 15 21 & 3021.

UNIVERSITY OF CALIFORNIA
REPRODUCED
COLUMBIA UNIVERSITY

(altis.)

I always expected Opuntia cracilata would be P. Nutkana — But I suspect it never grew at Nootka.

The great thick part of Mart. Fl. Brasil has come I will send by express, (if there anything you

want me to send with it? —
It costs $10; & 38 cts per
freight from Washington.
Also a pair of Brandys
Linen. Weight — cwts. 50 cts.
I send the man. &
charges to Thurber —
~~Next letter I will tell you~~
~~to whom you~~
I will Report all to
by next mail Steamer, in
a bookletter case to London
I enclose all to Brett & to
Thurber, & prepay freight to
Liverpool. I have given
Thurber memo. of your charges
pay 88 cts. —
Ever Yours affly
A. Agassiz

Cambridge 25 Jan'y. 1858

Dear Friend

Yours of Oct. 21. and Jan'y 21. are this morning received

I have to-day despatched a small light box to you by express, containing the Orchis you ask for, & your new pt. fr. Brazil, Linn. Proceedings. Part. 2. Vol. 2. I forgot to put in; & I send it with this, by mail.

About Aristolochia.

Aristolochia Wrightii,

Seem. Bot. Herald. p. 330. t. 72. from Durango. (= A. foetida var. brevipes. Benth. pl. Hartw. Seemann cites Wrights. 567, 568, 1706, & as a habitat from 1701.

That answers your question as far as I can do it. This figure = 568. Ds.

For habitat, Wrights 568.
is from Limpio.
567 = San Felipe & San Pedro.
1700 = Big Bend of " " —
& (undistributed) Wright
got it on the lower Rio Grande.

1701. (= Hunter's 1025) is marked
private no. 446. Probably
from Texas. See if this
is really the same.

Wrights 1666. I put in
Echites. I have only
one flower, but some
fils from long pods. — of
which I have taken all &
enclose the best one.

It is no. 713 in cat
1851. Bowra! See
above, under that no.

Mrs Jungius is
queer, but they
have been heard of
before – not a Phallus
though, that I know
of. Have it figured.

Now here is a letter
from Engelmann.

I beg you to look it
over, & return it promptly
to me.–
But pray write to
Engelmann & explain about

his back a Middle not coming.

And mail him a set of the plates & the copy I sent back to you by Bremen Steamer.

I believe you must prepare and a set of the plates & of the text if you can get it (from Bigelow) to Salem. as Dr requests. It is too bad he should be so disappointed about this.

Have you written to Bigelow for the 1000 copies? and have you got them?

Let me know the expense you are put to. —

Ever Yours affy

A. Gray

120.:
[60. | 1800 : □
2 1.25
62½.

1858. July

982. Cambridge. 28 Jan 2.

Dear Sir.

TOWNSEND REFERENCE

Please hand the enclosed to Thurber.

If he can get anything out of Putnam for sales of Thoreau since 1854, you are entitled to half. But some sheets had to be reprinted, the cost of which I suppose will swallow sales. —

I propose that these stock shall be equally divided between us. —

(My half packed up, and sent to me by freight —

(You have all the thick paper copies. I never had any. You to let me have half.

(You can put yours on sale with any bookseller you please

COLUMBIA UNIVERSITY LIBRARIES

I will not compete with you in the Newyork market. —

We must pay Thurber for the trouble of the Division &c &c —

Let him finally return to me this ~~[illegible]~~ schedule. ——

A. G.

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

Lam

282 Friday 29th 1858

My Dear Friend

HERBARIUM COLUMBIA UNIVERSITY

Firstly I send back your letter, & 25th which "I expect" you enclosed back to me accidentally, and am now wondering what has become of it.

JOURNEY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

I do not believe you will get Brt. Herald. Reeve is very stiff with his books, and does not allow his authors to have any copies without paying. Are will you want it much. I cannot lend you my copy at this instant, because W. is using it for Hong Kong Botany, but I will help you in anything you want.

Somewhere in Berkeley's Cryst. Brt. I read of a large Fungus, an Agaric? which has more than once grown out of bandages of a limb, for some time bound up. I have looked for the passage, but do not turn it up. But it is somewhere there. This is not exactly parallel in all respects with your case, but is very near it.

You mistake Ive Worker and did not see where he puts his bracket "(including Stylaspyce &c.)" in his title.

The Diagnosis on p. 55 is a "Ordinum" of a group or alliance. It does not reduce orders far enough to suit me, and I shall have him up for not including the Philadelphia under Auxiospyce - Stylaspyce.

"You will have received all I had to say about the Tetraclea.

You are too late in asking Mast. Ass. Gen. to be sent in my late box - Next time.

Planchon
To Celtis & Mertensia (= Monnina, the name to be used?) & not to Sporina, as I find without looking belongs Euphronaia Acantho- celtis rhamnoides.

The species is not described at all in Planchon's essays in Ann. Sci. Nat. 3d Ser. 10. It is not C. aculeata. (That is in Miquel's Cuba coll., I believe). You surely can get at Ann. Sci. Nat. in Natick, can you not? Surely that is in Astor Library. I can send you any volume you need. I have again looked carefully, and assured myself that this Texan species is still non-descript.

In a few days I shall be able to tell you the new in Miquel's Cuba plants & its congen-

Engelmann, in some specimens
I have called on Cactus (Acantho-
cactus) echinoides, n. n.

Thank Mr. Thurber for
his kind attention, & will write
to him on my second letter.
All I can say is, let him
do the best he can.

I am very glad he has got
the 20 copies of Musci &
the pay for Sullivant
for the rest.

GRAY HERBARIUM
COLUMBIA UNIVERSITY.

Yours ever

A Gray

2446

Cambridge. 9th Feb. 1858

TORREY HERBARIUM.

Dear Friend

I really know nothing about Alsphia, and such like, but I sent you yesterday, by Express, the Vol. of Bot Mag, which has Hooker's long note in it. His genera are likely to be dubious.

COLUMBIA UNIVERSITY

As to Mights no. 55b. I have only a fruiting specimen and two loose remains of flowers. I lend them to you. Enclosed

Herman has nothing
about Hapleophyton, & nothing
of the family of any bearing on
your plant. Also in the specimen enclosed."
"See the fine long proc=
"Office stamp I need I mean" to see=
what [illegible] to put in the letter.

Recd. Feby 11/58

945

You must guess at Scheele's
Celtis Texana from his descr.
- not time to find it. Can it be
Acanthocaltis?

Planchon is better authority than
Klotzsch.

I have not touched Erythraea
for a long time. (You ask it?
have detected Mistletoe. - I -
have you have got - and had
for a long while - my old Flora
mss. of that genus. - without
which (and with it either?) I can do
nothing.

But no Californian species
named to called Muhlenberg's!

I hope, and rather expect, you
will put all the Californians into
one. - along with some new ones
in my mss. from Mr. Coulter.

And now with genus Gypsandra
too. - ~~at last into Bentham's~~
~~species.~~ Lysiebachia (in Sciences
but Wedded - corrects the length of
the leaves, from inches to lines.
I suppose G. chrysocidea = Buland. &
ors. 3141.

Hartweg's

I have Benthams ~~No. 3~~ No. 1831 & 1832, but I do not find his 1830 (Muhlenbergii)

I send you a radical & an upper branch of 1832 - and a good radical branch of 1831. This will put you up to his two species. -

It does not seem to have my E. vernata. But it is a Mexican, I suppose -

I suppose the species vary dead-July. I should want 4 or 5 days to study the genus in before I could say anything about it.

No more to-day. Yours affectionate

A Gray

HERBARIUM
COLUMBIA UNIVERSITY.

TORREY
HERBARIUM.

22d Feb. 87.

Dear Dr.

HERBARIUM

Stir up Bisbee again.

I can hardly write to E. till I get the things in my hands. Bisbee must [illegible] or.

COLUMBIA UNIVERSITY HERBARIUM

About Fraxinus, see enclosure.

Poor Buckley I have written to — directed to Asheville, N. C.

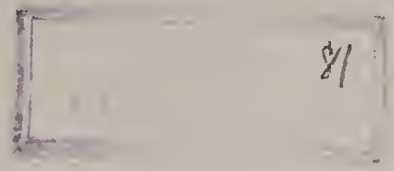
I am very busy — making the most of the fag end of vacation. I am very busy too — Love to you all.

Do not make too many pictures for E. Et.

Ever your

A. Gray

Cambridge, Nov 7, 1858



My Dear Dr.

I was much dis-
turbed by your letter of
the 28th and again by hearing
my fears confirmed by a
letter from Thurber yesterday
It is a gross outrage, and
I do not like to trust my-
self to write about it.

I hope you will take
patiently what you are
not responsible for and
cannot control. — Do not
give up in disgust. The
country has probably reached
the lowest pitch of disgrace
it can fall to, at present,
A change for the better is probably
in store. Let us patiently wait.

Some nice plants from
Miller's collection are yet to

come to you. I believe.—

Let me have the package you are making up for him within 2 or 3 weeks.

Any Orchids for Liverpool I shall send to him in a fortnight.— Send on with parcel from Mr. Austin.

My package, or box to you which I will send at the middle of next week, will contain a parcel for Mr. Austin (forgotten till now), and some books &c— for Wright, to take with him to Cuba.

For the 2 Misc. of Martius, Flora Brasil. lately sent, you owe me $13.—

The two came in opposite sendings— by an expensive way, owing to a mistake of Mailing— which increased the cost $2

above what it would have been.

Sturtevant's call has come — a poor one — very scanty specimens — only 4 or 5 things strike me as new or curious. He has a little M. bracea, but only in bloom — no fruit

I shall take little out, — will name such things as you would like me to name, & then send all on to you — to name the rest & return to Sturtevant.

I will put my notes on slips of paper, in the sheets with the specimens — & your likenesses, and at the notes Sturtevant can very well draw up his report.

No trees, & hardly any shrubs.

best. Of Cantia only some ripe fruit — plainly with a fleshy epicarp. Oh for the flowers!

I am still very busy with the Japan things of Might, — which take up much time.

Ever yours

Asa Gray

Miss Munro — a nice, unpretending young lady is with us, on a visit.

A. G.

HERBARIUM

Rec'd Apr. 28/88.

Wednesday
Evening

Dear Sir

TORREY HERBARIUM

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

Yours of 24th just
came this morning I got
my first letter from
my wife — who is much
obliged to you — & got on
well, — was headachy &
unwell — but will pick up.

Monday I was glad
to spend all day in the
country. All yesterday
& to-day have been given
to Oxytropis and nest=
ling genus, — on which
I have had considerable to
rip up. —

Now I must go on fast —
as you come to plants eh.
I know nothing of.

"Var" Oxytropis pubescens
v. spicata. Compositum, decaleum
no doubt. — You will get my notes on

I doubt you get Emma with 5 stamens. — Buddleia is occasionally 5-merous but you don't get 4 stamens with a 5-merous flower, I presume.

Mus (Bentley) 4 merous quandong dormitat, while a less bright person (e.g. Alleis) is sometimes wide awake.

But if Bentley had seen what Alleis did — flown off at it — he would have hit it, and the genus would now be an Eganiacea.

The thing is plain enough now we see it. It has nothing to do with Thismia, which is albinate — leaved, etc. — It will be a good enough genus for a Cavalry Major.

I copy for you the char. of
Cassia aristillata —
See that your specimens
have the striate sepals.
I have not heard from
Lyhmann.
I must press on & get
through this mss — which
I dare say you are waiting for.
I must try to leave home
next week. Say about a
week hence, but I shall
not come to N.Y. till the week
after — Say Monday?
Ever Yours affly

CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

A. Gray

24

Cambridge, Saturday —
July 17, 1858 —

HARVARD UNIVERSITY

My Dear Friend

The books being called in for annual examination at College Library, I was greatly troubled at a missing vol. of Botanical Magazine charged to me. I now recollect that it was sent to you, to work up some Viola from Starbuck's bog note. The librarian is in a great stew about it. Would you kindly return it on Monday or Tuesday.

HARVARD UNIVERSITY
HERBARIA
CAMBRIDGE MASSACHUSETTS

Your determinations of H. Englemanni Engelmannii sent by Thurber reached me yesterday. Many thanks —

The localities you cite do not quite correspond to my herbarium specimens — But I can make out what you mean by each I suppose. You have misplaced (or I) some labels of localities.

"E. affinis" I had so named. Its flowers are white, tinged reddish outside. But the "E. affinis var.? hispidulum" has bright golden yellow flowers, & cannot be same species or last. I had thought it E. hirsutula var.?

But you must know that species. ~~I do~~
It may be near the E. rosmarinoides, Benth.
Please compare it with that. Has that
yellow flowers? If that, why not
characterize a species "E. rosmarinoides Ten."
with its two forms. — If diff. make this "E.
pitgreavesii" — and send me a character.
For if the other plant is E. Thesioides, this is
not, surely.

"E. hypenanthemum, Ten. very white spotulate leaves. is from between Pole Creek & Cedar Bluff." I called it "E. graphalioides, Benth. Why not?

"E. near to meamar E. capitosum. (the locality of which has been exchanged with the preceding.) I call E. pauciflorum Pursh, What do you say?

I shall retain the nos. to hear from you once more, if you can devote a spare hour to your favorite genus.

How is it about plates of Cretaceous sent to Bigelow? Were so sets sent? Am I to pay for them, or to you give them to Bigelow. This seems to be the alternative. — Number is ready to pay for them for me.

Yours ever A. Gray

Thanks

Vols. 11 to 14 — N. Dk. Pinus. very neatly bound in Paris are here, duplicates, to be sold cheap. Who wants them? Speak soon.

Harris's book out of print — out at Burnham's — 4s — I doubt if I shall be able to get it Will it do if I lend you mine?

HERBARIUM COLUMBIA UNIVERSITY.

A. G.

25 and 29th Bank St. 27 July

Dear Friend

Your letter & the Bot. Mag received,

Has Thurber paid you for the Plates for Virginia I have all along told you I was to wait for more. Let him or you tell me what the additional amount is, that I may charge it to Explanation.

Al Dawson Junior is dead, 82. & you know that the McKinneys have lost their dear boy Lady Burton will feel all this.

I have to-day received a nice present from Librairie of Paris — i.e. the copy of R. Br. Prout,

presented by him to A. L. Swift,

I wanted & expected to take a run with Jane, who needs it.

But we are now tied till Middle of August, when the Jacksons leave us. I am kept here too by the attending suddenly to building new Conservatory — for which a donation of $ 2000 has been received, I cannot leave till it is well under way.

Some time before frost we hope to come & see you & the girls.

— short visit, I fear —
If you do not mind
children in the house
(& we can keep them out
of our room) you
had best come & take
possession of a spare
room reserved for you,
and have a walk
with me, before
the 15th inst — & you
come next week
I am asking the
girls now, to have
breakfast, and,
indeed, we have only a
bed for you.

CORRESPONDENCE
LIBRARY

From the bracketed plates for Englemann bring me one copy for myself, (I have none); and let Thurber have one. He will pick them out.

I am deep in Japan Botany — interesting results. —

Ever Yours affly

A. Gray

FORMER CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY.

257

Aug 3: 1858

TORREY HERBARIUM.

Dear Friend

I have not answered your two last letters, because I hoped you would come in this week.

Your last letter came & brings on your mss. Mrs Bird (Mr. Campbell will let you have it for the purpose) & look it over with me. Only chance, if you go to Boston in August, & could save much time.

About Eriogonea. We have settled all but one as I put them, and now your E. Fremontii must be what Benth. called it, & what I supposed it, viz. E. hirsicaule, Nutt.

Firstly your char. not best of E. Fremontii, accords very well with that of E. hirsicaule. Then your unpressed specimen which I have, is intermediate between the Engelmann plant and Gray's no. 139, which is Benth.'s E. hirsicaule & I presume Nuttall's, as it is so named by B. & H. in Gen. & also by you in my herbarium. It has yellow flowers, — and Nutt. says of his plant, — so are common to E. hirsicaule again — & you have only to refer Nuttall's plant back to that,

as var. leptophyllum, if you please.

Well. — So you receive the $14.94 for Cactaceæ plants, & that is get along with.

You must come this week for Engelmann will be in N.Y. next.

Might unload the Ark. & Pacific R. R. for $2.50 — but don't want to buy the 7 vols at that rate.

Get hold of the Mss.

If you can, of Steven's Botany, & hold on to it — if not to be printed — Hardly matter publishing in extenso. — Some good things in it. — Time to be removed.

N. List of Comps. Mex. Bound.

I expect this will carry you, letting you are on the way. If not you cannot come before the middle of next week after Confirmation is over.

Ever Yrs

A. Gray

Berlin Jr. Monday
Evening, Sep. 8th 1884

Dear N.

I received your parcel, and as there was no letter, I thought you were filling it. But that explanation has reached Australia, I shall not see you, at least for two days. So I will send you a parcel to-morrow i.e. will return your Scandinavian.

As I must do something to help you if I shall in the play, I have now given 2½ days to the Scandinavian, and you will see all that it amounts to, when you get the parcel

To-morrow, before the parcel goes, I shall have to say what is needful about the Legumine & the

Compositae you sent

I will send you
the specs. especially Prenanthes
containing Crepis's
drawings in Mrs. Heathcote's
as there are one or two
points you will wish to see.
But send it right back
when done with.

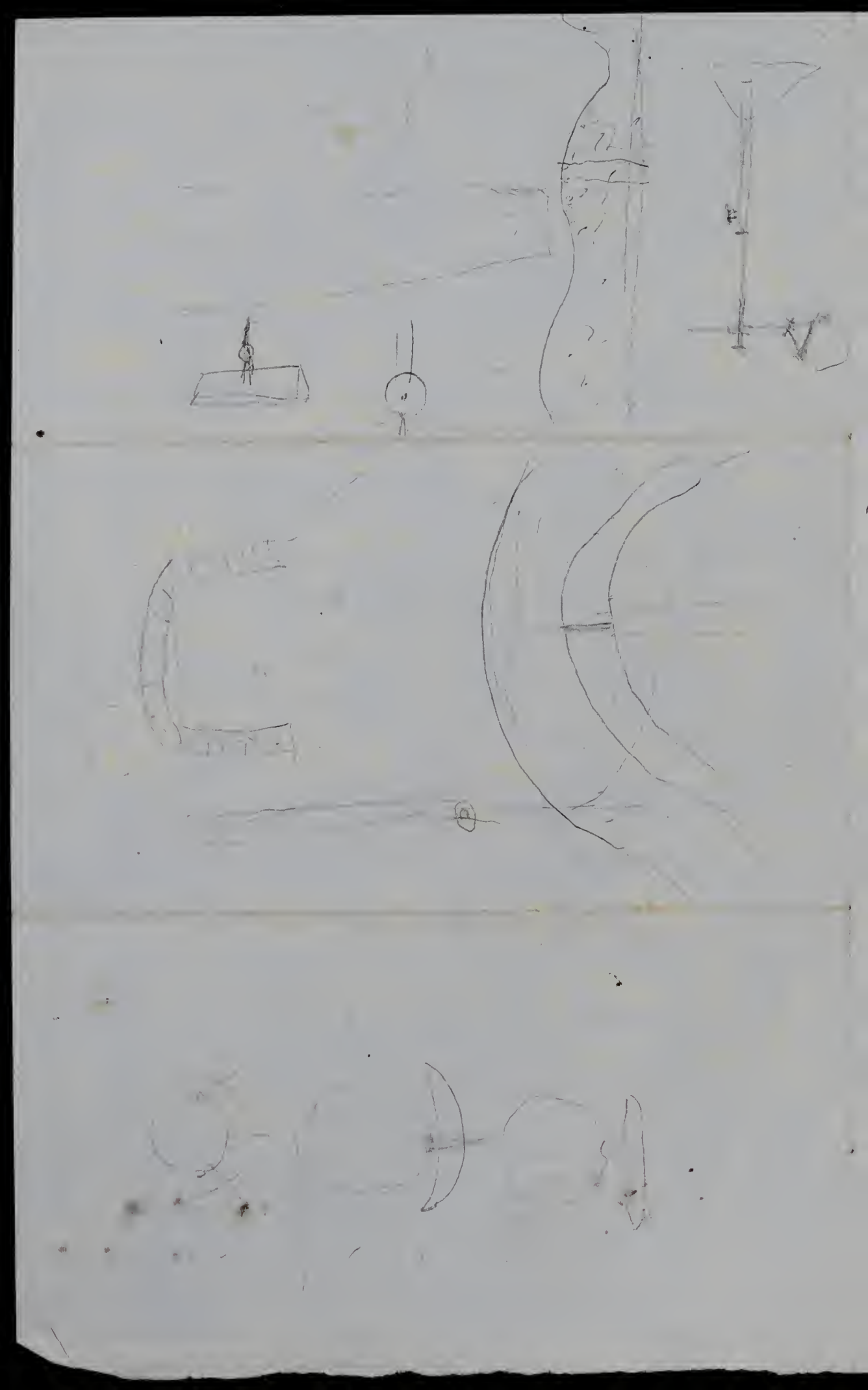
The genera of Heads
Hieracium hawkweed yet to
be considered & elaborated
anew. It needs a
man like Buchanan
for it, and such methods
as those are now at hand
only. But Buchanan
will never have his hands
full with the Flora of
Australia!!!

I want you to get up a parcel of Plants for Miller of Victoria Colony. I have some of his Plants for you – when I can pick them out. – And he will send me –

I think either you or I will have to send our Oaks to Scarborough – For asks for Specimens of all our Oaks. Who can get them!

Make Explanation a hasty welcome from me. –

A. G.



248

My. 31. Tuesday 1858

Dear Doctor

I sent you a note
this morning, & received a
beautiful one from dear Eliza
It is early for pic-
nics. I will see if I can
get any. & bring you
Cooper's Linnaeus. —
I saw a ~~Linnaeus~~
in a German Cat, very
cheap and ordered it. It
cost me but $3.13. The
price includes, & contains
all the syst. Botany of Linnaeus,
+ tiden vahis. 2nd hand copy,
but cloth bound.

Do you want it? If so
I will send it to you by Express
with any thing I can pick up
for Eliza — if your letter
reaches me Thursday morning. —

I have to ~~have~~ travel inland before I get to N.Y, so cannot well bring it.

My idea is to come to your house Monday noon (W. Marks Place) or there about — with Jane.

The MSS. you have on this, I sent it on Friday.

A.G.

I have Lobelia Cliffortiana
L. pro beta, named by
Linnaeus. 340. Might,
beta = just what I supposed!

Pentstemon visci folium
Nees = P. albidus, Nutt.
ex char. Nuttall.

250

Cambridge. Mass.

TORREY HERBARIUM.

July 18 58

Dear Dr.

Here is Buckley —
missing your note & Engel-
mann. Sorry I cannot
get away now to see
Engelmann; but that is
impossible: I am sick
just.

I think I can call
on about the middle
of next week to Litchfield.
and I may join them
in a fortnight — come &
pay you a flying visit.
& thence — somewhere — for
a few days.

Dr. If you come on here
come soon — say Friday
night, and stay as long
as you can. —

HERBARIUM

253

Cambridge. 24th. Sept. 1857

TORREY HERBARIUM

My Dear Friend

At length we are home again, — arriving night before last, very direct from Quebec, where we had (as everywhere else upon our whole route) Litchfield, Natick, Palisades, Fairfield, Sargent, Montreal &c — a delightful time. I am much stronger, except for a cold caught in Quebec, which still lingers.

Ed. Munro was very kind — is a jolly good fellow, as the English say.

I find you have not sent him any of the papers of the ~~Boundary Survey~~ Rail Road Exploration + & he has not yet seen the Chart of the Missouri nor had he a specimen until

I sent him one in a letter in August.

I am to send him a parcel soon and with ~~I shall~~ ~~will still have~~ you to send him the Whipple Lens, & ~~Guinea Gun~~ Beckwith Botany — thought I have few left.

I shall make up my parcel late next week.

The Surgeon & a young Lieutenant of his Regiment are now in Boston. If they have not a letter to you I will forward both. Mr. Wm's note of introduction that you may show them the Army Office — The Surgeon is old enough to know something, but he does not. The Lieutenant

is a good young fellow,
modest & gentlemanly.

I mention them that
you & Thunberg may
have ready anything
you may like to send
home by them. They
will reach Stockholm in May

Ole Munro said there
was some talk of your
sending him some more
Chronicles, which you
he would like to finish
up here sending home
Bathurst Grasshoppers
this autumn.

Ask Thunberg if there
is any further news about
Swedish vessel, - as there
is yet something more to
send.

AGNEW CORRESPONDENCE
WEBBAUCH
COLUMBIA UNIVERSITY

I opened the little parcel you gave me, on my return home, and find in it not only your own pretty fair photograph, which I have long wanted but also one from the portrait of dear departed Mrs. Torrey, which brought back many tender recollections. I thank you most heartily for it, and so does Jane. It will always be greatly valued by both of us. Though Jane knew her for so short a time, she appreciated her greatly and retains a warm interest on her own account as well from the knowledge of the affection I had for her and how much I owed to her.

Adieu. Yours affectionately with love to all.

Yours

and

254 Cambridge 1st Oct. 1858

Dear Dr,

We have lately got Jacq. Sel. Pl. Rar. vol. 2. — posthumous. edited by Fenzl. — Some acanthaceous figures not cited by Nees in it — are present sent to you, except that Dr Clifton's asinyas (from Key West) is well figured in it.

But it figures

Adamia cernuata. which I suspect = A. rotundata.

&

Adamia hetero[illegible] which is clearly A. citrulliformis, Wall.! (~~I. C.~~

It is t. 103,

why did not Fenzl cite it, as

the Does to 104 (S. Carolina)

A box from Hookers has just come. He enclosed a parcel for you from Meiss. I shall send it to-day — with other little things.

Ask Thurber if the parcel for Sweden is still in his hands — I will add to it a little perhaps.

CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

Yours ever

A Gray

55
25

Cambridge, Dec. 8/158

My Dear Friend

Buckley brought me your kind but sad letter. I was fearful - from your long silence - that you felt uncomfortable & annoyed. But had no idea that any direct attempt would be made to force you out. I cannot yet believe that the President, informed as the state of the case can & do countenance a thing! - But there is nothing that is impos-

able understrappers will not do.

I feel personally degraded and disgraced by the conduct of our affairs, and by the spirit which animates the administration, in matters both small & great.

Be patient but as firm as you can, as far as possible & wait for better times.

In your position, I should feel it my duty, as you do, to keep perfectly aloof

from politics, for
or can, — But if
we can last a little
longer, I should hope,
and I do hope —
for better times
and a more tenable
state of things, ~~but~~
whatever turn things
may take, I think
there are some signs
— tho' faint and distant
I confess, they are,
through of this,
Time is not very
much, We sympathize

sufficiently with you in your perplexities & troubles; — also with Thurber — may pray so to him.

Our love to the girls, and Harry — Jane will write to Eliza to-night to her very kind letter we got from. Thousand fold botherations & occupations have prevented letter to. Ever yours affectionately

A. Gray

TORREY HERBARIUM

1858

Cambridge Xmas eve

My Dear Friend.

I have been engaged from my study to make room for the young people to-morrow, and it is all picked up. Eaton went home to-day. There is a considerable parcel of Richardsonia plants now ready for you. — To them will be some more Australian to add. — I will retain the former till I get this letter ready, and send all

at once. —

My present object is to ask you to send me your specimen of Symplocarpus Foetidus. from N. W. Coast, Sender. If you will send it, put it up along with a parcel of Orchids. a Mr. Austen left with you for me some months ago — and any thing else which may have accumulated for me. I have what must be a close enemy of it from Japan — but with no spathe at all. I want to compare flowers &c. They are truly distinct from Symplocarpus — at least

my Lupsan plant is (
I have not the Oregon one)
– in the scape. Spathe
when there is any. Structure
of ovary similar. I found
a genus on Staten; i.e.
Arctiodracon ("Northern
Dragon" = Dracunculus sp. Linn.)
and show that Arctiocea
are only Dracunticea, etc.
And I correct the character
of the ovules of Orontium.
You are right about the
ovules of Symplocarpus.
In my ed 2. of Manual
I omitted to make a correction
which I had noted in my
textbook several years before,

This new genus has interested me greatly.

I send to Mr. F. Muller, of Australia by a vessel now up to sail in January - not before middle. Please send on soon anything you have to send him.

What is Thurber's address? I want him to name a few. Grasses.

I hope you are no longer troubled in your office. How is it?

Jane sends her warm love, - is unwell, but is gone to bed. I think she wrote to Eliza a day or two ago. My love to all yours -

Yours ever

Asa Gray

TORREY HERBARIUM

[1858?]

281.

HERBARIUM COLUMBIA UNIVERSITY.

Dear Dr

I am anxious to know what is going on in the dirty political world, whether purse and simple justice, or the contrary are to prevail. I wish you could visit us in the approaching holidays, but I suppose you cannot. Will you send Herbert to represent you.

Ever yours

A. Gray

1858

284. As to the Myctapiece
you brought me —
only room for the
parcel to put it in here.

Adelaisantes "Berlandieri var ?"
= just what Berlandieri
was founded on originally, —
the small-leaved state,

"Boerhaavia paucinora, n. sp."
= apparently only Coulter's no.
1425 (without leaves), which I
took for B. spicata. A —

Your "Oxybaphus aggregatus var ?
hispidus" = just the O. hirsu-
tus of Nutt. Upper Missouri,
Hooker &c. !!

I suppose the species of Oxybaphus will go down
into very few.

Hendley has that very slender
one — viz. his 745. Same as Wright's
1723.

Nothing heard yet of that
letter-press of Cuckoo from
Brighton.

I never felt certain of
him. & won't pay for the
plates until I get the letter-
press. — no how. — A.L.

P

Cambridge. Friday night.
Jan 9th 1859

TORREY HERBARIUM.

My Dear Friend

Thanks for your New Years letter, and hearty congratulations upon getting home your troubles. I told an acquaintance, and things will go better, on other days — (Your portion will evidently be strophes).

Inquires in Congress as to use of money in elections & forced contributions make some people wince, etc!

A box (paid) there came full of presents. — for which Jane would say thank you to you & the girls without waiting for advices; but she was kept busy by visit of relatives — unexpected by, & want of discrimination. She is far from well, & I keep her as quiet as I can. Perhaps she will add a line to this in the morning.

I will send you Emerson's present by — after Tuesday next. — till when I must

work like a Nig. to get Mr. Lapham's collection. I read a paper on Tuesday at a social meeting of Academy at Mr. Lewis's house that evening (Aug. 11th) — Mrs Gray came on (if by day train, stop there, & Asbury's place, where I will be.

I am going to hold forth for nearly an hour, upon Japan Botany in its relation to ours & the rest of the Northern temp. zone, and knock out the underpinning of Agassiz' theories about species & their origin — show, from the very facts that stumbled DeCandolle the high probability of single & local creation of species. — turning some of Agassiz' own guns against him. —

I introduced it here at Club, last month, & Agassiz took it very well, indeed. I shall not have time to look at the rest of Hayden's plants — till next week — for I send you this envelope — tho. I forget what it contains. — You will see.

I have got that Franchman's
Lat. California collection — had it
a fortnight — never opened a parcel
yet — or peeped in. Come & look
at them, & take what you like to
touch.

Have you got sheets yet of
Mex. Bound. Botany. I want a set
much. —

I asked Thurber the name of a couple
of grasses. Let the grass-man
speak;' now that he is turned
out to grass, let him attend to
his grazing.

Love to all

Yours ever affectionately

Asa Gray

259

Cambridge 11 Feb. 1859

Ans. 26. 5 Evening.

My Dear Sir

I have just finished Sanders's call up to Sceph. inclusive. The rest of the Mss. are mostly your pets. — & to you I leave them.

I send on by Express to-morrow, paid through, a package containing the collection as far as I have done it. & the MS. of the same — Whatever I have not done, for you to do —

When you come to any of these Mss. which I

I ought to have a specimen of Kindly lay out one for me (named) — if there are to spare after you have helped yourself.

The collection is most scanty. I have taken out little, as far as I have gone.

Then send me a specimens to Auden's order

Note what I have done with Mohavea!

N. collected a little that I took only one canella.

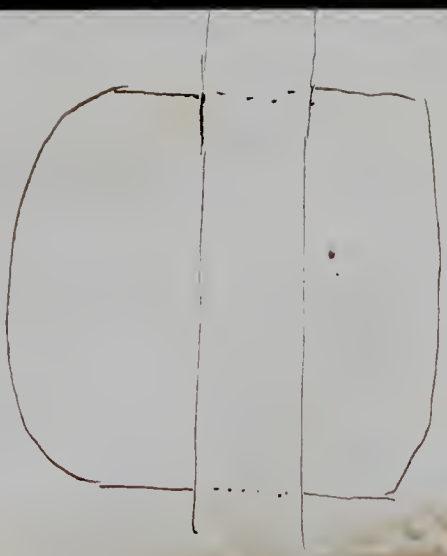
When you come here
I will give you a
vestige of a capsule
& a few suds.

I am much
pressed — Ever Yrs

Algy

If you can, come
to visit me previous
to 2nd week in March
then I get into collège
work again, and am
no longer good company
for 4 months.

A.S.



251

Cambridge. 19. Feb. 57

Dear Sir,

I have not yet the Indian Chronicle of 1848 — nor is it accessible here, except for the last 2 years.

I mentioned your telling me all about Dr Shortland having a gr. You must have told Prof Cullet, who has somehow published it, in a way to lead to this mistake.

I hope I asked you to send me bits of any new unpublished Traditions that could be found,

I am glad you have taken the place at the Army Office It add £100 — to your income & easily will be a good thing.

As to Inclosure the notice in Gard. Chronicle must have been by Berkeley. Ask Curtis to get Berkeley to send you a copy of it; I not long.

Or send to me (I am writing now to Lindley not surely) the date of your article in Med. Rep. 1819 — & in Becks Journal —

and I will make the reclamation in Gard. Chronicle.

Anderson writes me that I am chosen one of the 6 Botanists on the ~~Foreign~~ Foreign list of Stockholm Academy. to fill the vacancy caused by R. Brown's death —

Come when you can here — Always glad to see you —

Ever Yours

A. Gray

COLUMBIA UNIVERSITY

TORREY HERBARIUM.

292 Feb 1858

I have just clear recollection of how I fell into the error about ~~Hilpa Kapia~~ Cuppis Virginica. Mart.

Lately I have had correspondence about it with Porter & Brunad. — & original specimens sent me as well as some gathered in Philada streets, when it grows wt.

The differences between Cuppis & Thamides & alliparides appear not to be very marked; but my Philadelphia specimens accord better with mild-developed C. & Thamides than with alliparides.

Thanks for Chenop. glaucum. Porter sends it from Lancaster Pa.

Now for yours of Feb. 23) —

That unlucky little bit of a plant (returned) = Euonymus Bigelovii — Put in the press, if still in your hands.

The Cistaceæ. Malvaceæ is no

Dutt a Pharalcea — Not
is sufficient for noticing, call
it Pharalcea ostenides —
But P. Emmii has all
manner of forms and I would
avoid new ones, if possible.

Add reference to Enumeration —
which I neglected

The other thing must be, as
you say, a short distinction.

I think I see signs of the
2nd printer by a chuckle.

Put it in thus.

CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

I noticed the Agassiz thing —
from Lemhi Rapids, March 20;
but that be it! N. that has
a free periantle.

and
160

Cambridge Saturday
30 Nov. 1878

TORREY HERBARIUM.

My Dear Friend

Yes I can tell you all about Vegetable wax. I send you back your drops, and more with them — can give you more if wanted.

It is an old story. vide Thwaites Fl. Zeyl. p. 122. under Rhus succedaneum L.

"Olenin hujus seminum contusorum et post coctionem adhuc calentium pedo submissorum expressum Candelis conficiendis inservit, et sibi consistentiam acquirit"

The wax forms a stratum next the putamen.

TORREY BOTANICAL CLUB HERBARIUM COLUMBIA UNIVERSITY.

Jackson exhibited some of it at Mus. Acad — Thinks it is perhaps made up of 2 principles, one much less fusible, which separated may be excellent for candles. If it is it melts at too low a temperature.

My dear wife will be on the way homeward when you get this, I suppose, and I long to see her again.

I am very grateful to you, and the dear girls for the kind care you have taken of her. She has enjoyed her visit exceedingly

In haste Ever Yours

A. Gray

HERBARIUM

Mr. Lining is picking up
and our Cork also decidedly
improving.

UNDENCE
UM
ERSITY.

TORREY HERBARIUM.

Cambridge, Thursday Evening April 1879

Dear Dr.

I have your two favors of 12th & 15th. I am very grateful for the nice care you take of my wife. You seem to have her under very thorough control.

Come her up fast as you can, and please return her by railway on the 3d of May; for the 4th being the 11th anniversary of our union, we must not be separated then, "the Union" it must be preserved.

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

I have got no Anthospermeae elegans - or other species, except this Western thing.

I have not the skill to copy the details from P. de B. But I send the book, in parcel by Express, and you can get my wife to copy it

by tracing. She does that work very well.

— I send back your Coverdale with many thanks. —

The old Cock was much like R. Br. in many respects. Thro' there is nothing in him to love, he calls out a sort of admiration — partly in the literal sense — i.e. wonder mixed with pity — that he had no feelings. Brown had, and besides he was social and not so very queer. — But he lived very much in the same way, and I suppose had as little sense of religion. —

~~Skeat~~ Skeat

Skeat spells Anthe = phora, but gives no derivation. R. de B. you see does. — So Anthephora is doubtless right.

Can that & Buffalo-
grass be the same?
I doubt. Has the
Antherphora-like plant
no Names of its own?

The mode of growth
does not so much distin-
guish your plant from
Stanbery's Hamiltons,
and verily I suspect they
are the same species.
Pity you came in & April
a good name.

I send you some flowers
of Stanbery's. You can all
N. like them — at least
all that are left.

Compare for yourself

FOUNDED BY COLUMBIA UNIVERSITY. CORRESPONDENCE PEDAGOGIUM

I send you a letter of Chapman's — the only one I have had for 8 or 9 years,

for he is coming out with his Southern Flora after all!

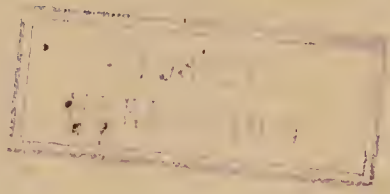
I will not write to Jane till to-morrow —

Ever Yours affy,

A. Gray

THE HERBARIUM
COLUMBIA UNIVERSITY.

261 Cambridge. 7. Feb. 1842



Dear Sir.

This Elephants came from Alexandria, South Am. Feb. 13. Ellis. Will you tell me what it is. — early,

Mr. Ellis wants to raise money by selling for $150

Nat. Hist. N. Y. 19 vols.
Stark. Fl. Brit. 2 "
Stark. Fl. Pl. 4 vols.
1837–1841
Stark. Fam. Nat. 1834–1842
Can you find him a purchaser?

I send you the 1st page of a letter from

Dr. Hooker returned
to-day — and a message
from Bentham, which
will tell you about
Lady Hooker.

Please return Hooker's —
as I have not answered
the letter it belongs to.

I shall also delay
to reply to Mr. Ellis's
letter till I hear from
you.

Jane has been having
a bad inflammation, but
is getting over it.

Ever yours

A. Gray

COLUMBIA UNIVERSITY.

9/07

Cambridge. Mass.
Feb. 20. 1867

TORREY
HERBARIUM.

My dear Sr.

Whether you can read Brisseis note is very doubtful. But you can read mine to him in reply, and you see what I want you to do - right off —
viz. Take a copy of text of Mex. Bund. Scrs. - take out the sheet which contains Euphorbia (all but the tail, which I have copied) enclose it in my letter to Brisseis. folded to go in. seal & mail.

To make sure that it is within the ounce which my stamps provide for cut down the margins a little. - but no more than the binder would in binding. - And please send the rest to me, in your next parcel — for Brisseis — along with another copy for Dr. Canfield. California. When you get the plates. I may as well pay for Brisseis copy.

What did A. & Rogers dispute over — and who got the better? I had not heard of it.

I shall send to-morrow to Buttam your remarks on Cryto-stemma. Who shall decide, when on facts, when Botanists disagree?

Jane has written to you Jane. Ever yours

A. Gray

TORREY BOTANICAL SOCIETY HERBARIUM COLUMBIA UNIVERSITY.

(Does Prof. N. W. Ames, in Cambridge, wish to publish as soon as you please. The appropriation was passed up for it.

TORREY BOTANICAL SOCIETY HERBARIUM COLUMBIA UNIVERSITY.

$$\begin{array}{r} 101 \\ 48+14+39 \\ \hline 160 \mid 13.9 \\ 12.9 \\ \hline 40 \end{array}$$

$$\begin{array}{r} 43:16::10 \\ 10 \\ \hline \end{array}$$

$$\begin{array}{l} 9 \times 9 = 81 \\ 9 \times 9 = 81 \\ \hline 16 \end{array}$$

$$\begin{array}{l} 9 \times 9 = 81 \\ 9 \times 9 = 81 \\ \hline 16 \end{array}$$

TORREY HERBARIUM.

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

Aud. Nov. 2-5

263

Cambridge, Nov. 2, 1881.

Dear Sirs,

You not naming my Montiaceæ I have been obliged to devote 2 days to their study, and can clear up the genus pretty nearly.

But you must help me to know your M. alpina.

Does it answer to 286, or 287 of Parry's - have sent.

Have you a bit of Nuttall's P. alpina? (Wyeth). Is it not the 287.

Pray help me here.

There will be beautiful specimens your M. ciliata, which = denticulata. Lehm, and = the original Sibirica which latter name must be restored.

Indeed, now that I am fresh in them, I should like to revise your genus over of Montiaceæ.

I am obstinately silent yet gold!

Cambridge Dec 3d 1881

My Dear Friend

Your letter of 29 came this evening. I have been very busy collating Semianus Fuegia Plants, and I could not till to-day set about the distribution of Parry's Specimens. I am laying out for you all which you will be interested in — when they are in any quantity at all. And must finish now, as I have to get ready a number for Watson to post — a pack from to-day — in the hands of Mr. Crichton (Boyd's friend who will be here to visit next day) did you see him? He seemed a nice young man.

Your parcel shall come direct to you at Manchester, which I have long ago done with

The great pressure and pre-occupation of mind, you see, has made me leave those few Sandwings Plants in your

letter, untouched, But I will soon look at them again.

I have you sent to Walker yet the copy of the letter-press of the Bot, Mex. Boundary? If not may do correct me with pen, & send it by Maggy, or Stevenie - so that I get it by Monday, to send in my parcel to Walker. It is wanted at Kew; and the plates may come when they can be got.

We rejoice in your nice thanksgiving. We had ours a week earlier - owing to the difference in longitude.

Ever Yours A. Gray

HARVARD UNIVERSITY

Cambridge. April 25th 1892.

118

Dearest Dr

Yours of 22nd & 23rd came yesterday. And to day I have added your notes & am ready to send it any post to Philad. My few words of introduction &c. &c. I trust will suit.

I am sorry you could not make out the Cyperus Sturmianus. When you return it, perhaps I may identify it with some Mexican species.

Please send the specimens back to me.

"Solanum subcanum is S. Balbisii = S. pisynthifolium. Var.

S. Linnaeanum" " " is Withania punctata.

"Ahouia speciosa". Has not your

your A. turbinata
wireless print?

Two great battles are impending. — and yet we are as calm as possible — not half so nervous as would be expected. The fact is, we have great confidence in both McLellan & Stalleck.

Bring Dee now, with Buckley I shall — on the 2 days per week which I have, go on with the Plants of Parry, — and having the materials at hand — I hope to do a little more with some Castilleias.

Tell Maggy — the dear — that her letter gave me great pleasure. She is out to her sewing circle this evening — as usual, or she would have a line or two to send.

I have the moss at my

cold, and with it also, a
something on my chest
which has taken me down
a little, — a consequence of
too close confinement at my
desk in February.
I now begin to feel more
like my old self again,
& am thankful to say.
Sorry to hear that your
journey did you no good.
Pray, cuddle up your-
self carefully till Spring
puts in, when you
are sure to thrive

Ever Yours affy,
A. Gray

P. S. Eaton wants some
more botanical papers, & I
shall open also. —
Does the Smithsonian want
any more; — or any one else
you know of.?

COLUMBIA UNIVERSITY

[1869] 1

Dear Mr. Meehan

Certain enquiries and statements with which you have recently plied me, accompanied with most ingenious and suggestive reasonings, have led me to take up to-day, for the first time, Your paper On the Laws of Conifers, read by you at the 17th (Chicago) Meeting of the American Association for the Advancement of Science. My excuse for such neglect is, that the paper was read and discussed at a meeting which I did not attend, on the eve ~~of my going abroad for a~~ my long absence from the country, - was published while I was abroad, and my copy of the printed volume was delivered to me only a few weeks ago. As you have recently been proposing to me the more advanced applications of similar views, it has happened that my acquaintance with the

theses you are maintaining has begun ~~at~~ the wrong end. I go back now to your first paper, and I will briefly comment on the two ~~points~~ main morphological points in it; viz. 1, "that the fascicles in Pinus are phyllioid shoots": 2, that "the true leaves of Coniferæ are usually adnate with the branches."

I know that you desire me to speak my mind; in doing so I must deny the first proposition and doubt the second.

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY.

As to the first. By "phyllioid shoots" ~~I~~ ~~you~~ I understand you to mean ~~that~~ branches which take the form and office of leaves; as for instance, the so-called leaves of Asparagus and of Myrsiphyllum are phyllioid shoots, i.e. are morphologically branches. And you mean, speaking precisely, not "that the fascicles in Pinus are phyllioid shoots",

but that each of the two, three, or five so-called leaves of such fascicle is a phyllid short. At present I know nothing, and have nothing to say about Sciadopitys, and if I ever read Dr. Dickson's paper upon it I have forgotten the substance of it. But I may remark, in passing, that the sentence you quote from him, "In Sciadopitys I have to call attention to the fact that the leaves of the growing shoots consist, as in Pinus, entirely of bud-scales," does not imply (as you think) that he regards the ~~leaves~~ pine-needles (to use a neutral term) as phyllid shoots; he is speaking here only of the primary or scale-like leaves, the bud-scales. I think it likely that you are the sole propounder of the theory that a pine-needle is of the nature of axis, not of leaf.

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The reasons you advance (p. 320) do not bear you out. "Their position in the axils of the true leaves indicates the probability", you say, "It conclusively indicates that the fascicle belongs to a branch. If the needle was single and alone your argument would be to the point. But what we have in the instance referred to, "as is beautifully shown in Pinus Austriaca", is a distinct though short woody axis, bearing first some delicate scarious sheaths, and then a pair of needles. The whole, is a branch, the thin sheaths are bud scales, and the needles leaves. "Their permanency in proportion to their insidiacy" you mention as "another strong point" in your favor, remarking that those" of P. Austriaca remain green four or five years". But the undoubted leaves of Norway Spruce do so for nearly twice that period. "The fascicle

... has a distinct connection with the woody system of the tree," and is found to "increase in size with the age of the sheath". Yes, the axis of the fascicle is axis of branch, and so what this axis bears, i.e. the needles, must needs be leaves. Q. E. D.

If further and ocular proof is wanted, the seedling pines of your nursery will furnish it, the stems of the first year bearing these needles stiltwise, one to each node, without any scale behind them, — in short just like those of a young shoot of Larch or Deodar.

I do not think you are at all warranted in the opinion you express that the regarding of the needles of Pine as true leaves would be in "serious opposition" to your theory "that a vigorous axial growth is opposed to the development of true leaves in Coniferæ". So much the worse for your theory, if it be so. But you will see,

on a review of the subject, that Pinus is as good a case for you as Larix, and better.

~~Yours~~

The second proposition is really the only ~~important~~ one at all important to ~~you~~ the theoretical view which you so ably expound, viz. that "adnation is in proportion to vigor." Is. Here your proposition, that the true leaves of Pinus (the scales), and the leaves on growing shoots of Coniferæ generally, are mainly or largely adnate to the stem, opens a really difficult question as to where the base of the leaf is, in certain cases, — one upon which I am not prepared to pronounce a judgement. I will only say that I doubt if the leaf can rightly be regarded as beginning so low down on the axis, even in Coniferæ, as you suppose. And then the view you

take lead you regard foliaceous extensions down the stem, or ridges &c, under the leaf, as ~~decurrent~~ indicating that the leaf originates at the base of such extension, and is adnate with the stem from thence upwards, I cannot well avoid the conclusion that you pose too much for the validity of your theory. Where you say "the leaf is "adnate", botanists say it is "decurrent"; and the latter term seems to me the ~~a~~ better expression.

The question, (in the Coniferæ, &c.) resolves ~~it self~~ itself mainly into this: Does the cushion or pulvinus, as botanists term it, below the insertion of the leaf, and with which the leaf-stalk is ~~generally~~ commonly articulated, belong to the leaf or to the stem? Buccarini, who very clearly illustrated the different forms of structure of this pulvinus in the Fir tribe (in the last part and last

plate of his Ilex Japonica he lived to publish), and showed what good characters it furnished, quite explicitly refers it to the axis rather than to the leaf. Parlatore, in the Prodromus, by the phrase: "folia ..... basi vel maxima expansa semiamplexicaulia et decurrentia" adopts the same view that you do to some extent, — to what extent is uncertain, ~~for he~~ or many his ~~although his expression~~ ~~phrase "folia ... in petiolum~~ His phrase under Sapindus: "Folia sessilia vel in pulvinis adnatis decurrentia aut breviter petiolata may mean that the ~~leaf~~ leaves are ~~adnate to~~ decurrent to form adnate pulvini, which is your view, or that they are decurrent into ~~the~~ ad or upon the adnate pulvini, — which leaves the morphology of the pulvinus

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undetermined. From the context, I infer that the latter is about what he means.

Finally, your idea as to the constant relation between the development of this pulvinus (whatever it be) and vigor of axial growth, may be expressed either way. (Your formula, i.e. the more the axis develops the more the leaves will be adnate to it,— will be the strictly correct one when you prove that each leaf really originates from the 5th, 8th, 11th, or 13th node below that at which it separates from the stem. On the opposite view we may say that there is no appreciable development of the pulvinus when there is no sufficient development of the axis it belongs to so as to make room for it. However I am still tempted to reverse your expression. That the awl-shaped leaves are adnate and the scale-shaped leaves free, and say rather that the awl-shaped leaves are decurrent and the scale-shaped leaves adnate. Either way, believe to remain, Very sincerely Yours. Asa Gray.

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Dr Cary & Mr. Nelson
on the Cause of Confusion
Dec. 1778

T. Torrey

27. Jany, 1871

Dear Doctor.

You have, of course, all Blodgett collected. But I find nothing to answer to Chapman's Salvia Blodgettii. Have you any idea what that may be?

(Do you know Chapman's address. He was to move from Apalachicola, I think to Jacksonville, But I am in doubt.)

I should think Chapman's pl. to be S. occidentalis, which it is, a number has not turned up in Florida keys. But I see it not thence among yours or mine.

Ever Yrs A. Gray